

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application. Where claims have been amended and/or canceled, such amendments and/or cancellations are done without prejudice and/or waiver and/or disclaimer to the claimed and/or disclosed subject matter, and the applicant and/or assignee reserves the right to claim this subject matter and/or other disclosed subject matter in a continuing application.

Listing of Claims:

1. (Previously Presented) A method of processing a packet comprising:
 - receiving the packet;
 - translating the packet from a first protocol-specific format to a canonical packet format comprising a fixed length generic packet format that can represent multiple-specific formats, but is different than any one protocol-specific format;
 - translating the packet from the canonical packet format to a second protocol-specific format; and
 - forwarding the packet.
2. (Previously Cancelled)
3. (Original) A method of processing a packet as recited in claim 1 wherein the translating is performed in a network device.
4. (Original) A method of processing a packet as recited in claim 1 wherein the translating is performed in a network switch.

5. (Original) A method of processing a packet as recited in claim 1 wherein the translating is performed in a network switch that includes a pooling switch.
6. (Original) A method of processing a packet as recited in claim 1 wherein the first and second protocol-specific formats are the same.
7. (Previously Presented) A method of processing a packet as recited in claim 1 wherein translating the packet from a first protocol-specific format to a canonical packet format includes writing information associated with protocol-specific fields from the packet in the first protocol-specific format.
8. (Previously Presented) A method of processing a packet as recited in claim 1 wherein translating the packet from a first protocol-specific format to a canonical packet format includes writing information associated with protocol-specific fields from the packet in the first protocol-specific format to protocol-specific fields in the packet in the canonical packet format.
9. (Previously Presented) A method of processing a packet as recited in claim 1 wherein translating the packet from a first protocol-specific format to a canonical packet format includes writing information associated with general fields from the packet in the first protocol-specific format.
10. (Previously Presented) A method of processing a packet as recited in claim 1 wherein translating the packet from a first protocol-specific format to a canonical packet format includes writing information associated with multiple protocol-specific fields from the packet in the first protocol-specific format.
11. (Previously Presented) A method of processing a packet as recited in claim 1 wherein translating the packet from a first protocol-specific format to a canonical packet format includes writing information associated with protocol-specific fields from the

packet in the first protocol-specific format to common fields in the packet in the canonical packet format.

12. (Previously Presented) A method of processing a packet as recited in claim 1 wherein translating the packet from a first protocol-specific format to a canonical packet format includes:

writing information associated with protocol-specific fields from the packet in the first protocol-specific format to protocol-specific fields in the packet in the canonical packet format;

writing information associated with general fields from the packet in the first protocol-specific format to general fields in the packet in the canonical packet format; and

writing information associated with common fields from the packet in the first protocol-specific format to common fields in the packet in the canonical packet format.

13. (Original) A method of processing a packet as recited in claim 1 wherein:

the translating is performed in a network device;

translating the packet from the first protocol-specific format to the canonical packet format occurs during data ingress; and

translating the packet from the canonical packet format to the second protocol-specific format occurs during data egress.

14. (Previously Presented) A network device for processing a packet comprising:

an ingress interface for receiving the packet;

an ingress processing engine configured to translate a packet from a first protocol-specific format to a canonical packet format comprising a fixed length generic packet format that can represent multiple-specific formats, but is different than any one protocol-specific format;

an egress processing engine configured to translate the packet from the canonical packet format to a second protocol-specific format; and

an egress interface for forwarding the packet.

15. (Previously Presented) A network device for processing a packet as recited in claim 14 wherein the ingress and egress interfaces are the same physical interface.

16. (Previously Presented) A network device for processing a packet as recited in claim 14 wherein the ingress and egress processing engines are implemented on a single physical processor.

17. (Previously Presented) A method of processing a packet as recited in claim 1 wherein at least one field of the canonical packet format is shared by multiple protocols.

18. (Previously Presented) An article capable of processing a packet, the article being embodied in a computer readable storage medium and comprising program instructions capable of:

receiving the packet;

translating the packet from a first protocol-specific format to a canonical packet format comprising a fixed length generic packet format that can represent multiple-specific formats, but is different than any one protocol-specific format;

translating the packet from the canonical packet format to a second protocol-specific format; and

forwarding the packet.

19. (Previously Presented) A method of processing a packet as recited in claim 1 wherein the canonical packet format includes a shared field in which values from different fields specific to different protocols are placed.

20. (Previously Presented) A method of processing a packet as recited in claim 1 wherein the canonical packet format includes: a multiple protocol-specific field associated with a field common to multiple protocols; and a protocol specific-field associated with a field that is specific to only one protocol.